

Cidofovir

Cidofovir is an antiviral medication used to treat CMV retinitis in immunocompromised patients, and it is also indicated for acyclovir-resistant HSV. This drug has a long half-life, and works by preferentially inhibiting viral DNA polymerase. This drug is active, and does not require phosphorylation by viral kinase. A chief side effect of cidofovir use is nephrotoxicity, which can be decreased when cidofovir is coadministered with probenecid and IV saline.



PLAY PICMONIC

Indications

CMV Retinitis

Side-toe-Mega Virus with Red-tin-eyes

Cidofovir is used to treat cytomegalovirus (CMV) retinitis in immunocompromised patients.

Acyclovir-Resistant HSV

Apple-cyclops Resisted by Herpes-harp

Cidofovir has proven effective in treating patients with acyclovir-resistant herpes-simplex virus (HSV) infections.

Mechanism

Inhibits Viral DNA Polymerase

Inhibiting-chains on DNA Poly-mirror

Cidofovir inhibits viral replication by selectively inhibiting viral DNA polymerases. Thus, this drug inhibits viral DNA synthesis during its reproduction cycle.

Side Effects

Nephrotoxicity

Kidney with Toxic-green-glow

The major side effect of this medication is nephrotoxicity, which is dose-dependent.

Administer with Probenecid and IV Saline

Probe with IV Saline-sail

Coadministering probenecid and IV saline with cidofovir decreases the nephrotoxic effects in patients.